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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FOLEY & LARDNER LLP
777 EAST WISCONSIN AVENUE
MILWAUKEE, WI 53202-5306

EXAMINER	
CASCHERA, ANTONIO A	
ART UNIT	**PAPER NUMBER**
2628	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/842,561	CHERI ET AL.	
	Examiner	Art Unit	
	Antonio A. Caschera	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 3-22-07
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. Receipt is acknowledged of a request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e) and a submission, filed on 03/22/2007.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 24, 26, 33-35 and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims 24, 33 and 34 comprise the limitation of configuring the light sensors to a "back surface of the housing" (see claims 24, 33 and 34) which was not described in the specification in such a way as to convey to one skilled in the art at the time the application was filed, had possession of the claimed invention. The specification only discloses:

> [0017] Sensor 121 may be located near an edge 125 of display 113. Sensor 123 may be located near an edge 127 of display 113. In an exemplary embodiment, sensors 121 and 123 are located near an edge of display 113. Alternatively, sensors 121 and 123 may be located any distance away from display 113 sufficient to provide an accurate signal as to the light intensity which display 113 is subjected to.
> [0018] Sensors 121 and 123 are depicted as being disposed on opposing edges 125 and 127 of display 113. As shown in FIG. 1, opposing edges 125 and 127 are left and right hand edges of display 113. In an exemplary embodiment, sensors 121 and 123 are disposed in the middle of edges 125 and 127. Alternatively, sensors 121 and 123 may be disposed on

> opposing edges 126 and 128 (upper and lower edges of display 113). Furthermore, sensors 121 and 123 may be disposed in any location away from display 113, or at any location along edges125, 126, 127, or128. Further, sensors 121 and123 may be incorporated into display 113 itself, being disposed beneath the display glass, e.g. light may be transmitted through the display glass to a sensor located beneath the display glass and disposed within the housing. [0019] In another exemplary embodiment, depicted in FIG. 4, handheld computer 200 includes sensors 221,222, 223, and 224. Sensor 221 may be located near an upper left corner of display 213. Sensor 222 may be located near a lower left corner of display 213. Sensor 223 may be located near an upper right corner of display 213. Sensor 224 may be located near a lower right corner of display 213.

The drawings further only show what is described in the above paragraphs but however, do not show the explicit configuration of positioning the sensors on a "back surface of the housing," the housing further described as configured for being held in hand during use and containing a front surface for supporting a display (see claim 1 limitations, for example). Therefore the Office deems such limitations of new claims 24, 33 and 34 as new matter. Prior art rejections will not be made for such claims since such limitations are not supported by the disclosure and therefore an adequate explanation of their configuration/use/function is not clearly defined and cannot be compared to previous art.

The claims 26, 35 and 37 comprise the limitation of the adjusting a characteristic of the handheld computer/computing electronics, the characteristic being a brightness behind a plurality of input buttons (see claims 26, 35 and 37) which was not described in the specification in such a way as to convey to one skilled in the art at the time the application was filed, had possession of the claimed invention. The specification only discloses:

> [0015]...Handheld computer 100, depicted in FIG.1 includes a plurality of input functions, keys 119 and a display 113 having graphical user interface features. Display 113 may be provided with an interface that allows a user to select an altered display content using a pointer, such as, but not limited to, a stylus. In an exemplary embodiment, display 113 also includes a GraffitiTMwriting section 118, or other hand recognition software, for tracing alpha numeric characters as input. A plurality of input buttons 120 for performing automated or preprogrammed functions may be provided on a portion of display 113. In a particular embodiment, display 113 is a touch screen display that is electronically responsive to movements of a stylus (or other pointing device, such as but not limited to a fingertip or pen tip) on the surface of display 113....

The drawings do not show or even suggest the above limitation of any type of brightness behind buttons. Therefore the Office deems such limitations of new claims 26, 35 and 37 as new

matter. Prior art rejections will not be made for such claims since such limitations are not supported by the disclosure and therefore an adequate explanation of their configuration/use/function is not clearly defined and cannot be compared to previous art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 18-23, 25, 27, 29, 30, 32, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraft et al. (U.S. Patent 6,463,278 B2) in view of Katada (U.S. Patent 5,933,089).

In reference to claim 18, Kraft et al. discloses telephone automatic mode selection method for implementation in a phone, connectable to both cellular and cordless networks), the phone comprising a normal user interface including a display and keypad (see column 4, lines 58-67 and column 5, lines 1-2). Note, the Office interprets the phone of Kraft et al. functionally equivalent to a "handheld computer" as Kraft et al. further discloses the phone comprising a CPU (see column 4, lines 58-63). Also, the phone of Kraft et al. is interpreted as inherently comprising, "a housing configured to be held in hand during use" since it is a telephone and further inherently comprises a front surface of the housing which supports the phone display, disclosed by Kraft et al. (see column 5, lines 1-2). One of ordinary skill in the art would surely agree with such interpretations made by the Office since telephones are widely utilized and

available incorporating such limitations. Kraft et al. further discloses the CPU and coupled circuitry to handle cellular telephone specific functions (see column 5, lines 26-43) and therefore the Office interprets Kraft et al. to disclose the phone as comprising cellar telephone electronics. Kraft et al. also discloses the phone to use control parameters to operate a timer function for enabling a calendar function for entering of appointment data (see column 2, lines 15-21 and column 4, lines 35-57). Note, the Office interprets the CPU (computing electronics) to handle such calendar or PIM data functions since Kraft et al. discloses the CPU to handle the phone modes (see column 6, lines 7-24). Kraft et al. discloses the phone to further comprise of a light detector for detecting light conditions around the phone which are interpreted as being received by the computing electronics (i.e. CPU and coupled circuitry of the phone) (see column 5, lines 44-52). Although Kraft et al. discloses a single light detector, Kraft et al. does not explicitly disclose utilizing a plurality of light detectors. Katada discloses a pager provided with a display function to display messages and the capabilities of changing display brightness according to the ambient environment (see column 1, lines 5-10). Katada discloses the pager to comprise of two photo sensors for receiving ambient light and light projected by the display backlight (see column 6, lines 46-58 and #21 and 22 of Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the multiple photo detectors of Katada with the phone system of Kraft et al. in order to provide optimum displaying of text/image data on a display of a portable/handheld device when the display backlight is turned on, via the utilization of a first photo detector and adjustment of backlight intensity, and even when the display backlight is turned off via a second photo detector and adjustment of display intensity (see column 10, lines 39-51 of Katada).

In reference to claims 19-21, 30 and 32, Kraft et al. and Katada disclose all of the claim limitations as applied to claims 18 and 29 above in addition, Katada discloses adjusting display contrast and brightness (via whether to turn on or off the display backlight) based upon the values measured from the photo detectors (see column 7, lines 8-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the multiple photo detectors of Katada with the phone system of Kraft et al. in order to provide optimum displaying of text/image data on a display of a portable/handheld device when the display backlight is turned on, via the utilization of a first photo detector and adjustment of backlight intensity, and even when the display backlight is turned off via a second photo detector and adjustment of display intensity (see column 10, lines 39-51 of Katada).

In reference to claim 22, Kraft et al. and Katada disclose all of the claim limitations as applied to claim 18 above. Kraft et al. explicitly discloses the phone to use control parameters to operate a timer function for enabling a calendar function for entering of appointment data (see column 2, lines 15-21 and column 4, lines 35-57). Note, the Office interprets the CPU (computing electronics) to handle such calendar or PIM data functions since Kraft et al. discloses the CPU to handle the phone modes (see column 6, lines 7-24). Further, the Office interprets the "contact" limitation of Applicant's claim to inherently be comprised with the phone device and user interface disclosed by Kraft et al. since such feature, having a list of saved dialed phone numbers is inherent to telephone devices.

In reference to claim 23, Kraft et al. and Katada disclose all of the claim limitations as applied to claim 22 above. Neither Kraft et al. nor Katada explicitly disclose the handheld computer configure to provide word processing, spreadsheets and a calculation application

however, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to the implement a multitude of different software/applications on the phone device of Kraft et al., these software/applications including word processing, spreadsheets and calculation applications. Applicant has not disclosed that specifically providing such explicit applications provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the software/applications included in the phone device of Kraft et al., which include PIM type information such as calendar and contact information, because the exact set of software/applications included on a phone device is seen as a matter decided upon by the inventor and to which best suits the application at hand. Furthermore, the Office sees such a limitation as providing no immediate criticality to the invention at hand since the real scope of the invention is seemed to be directed to use of light sensors on a handheld device to adjust brightness/other parameters of the device and because the exact set of software/applications included on a phone device, in particular including specifically word processing, spreadsheets and calculation applications would not affect the operation of the device as a whole. Therefore, it would have been obvious to one of ordinary skill in this art to modify the combination of Kraft et al. and Katada to obtain the invention as specified in claim 23.

In reference to claim 25, Kraft et al. and Katada disclose all of the claim limitations as applied to claim 18 above. The Office interprets that the phone device as disclosed by Kraft et al. inherently comprises input buttons, as a keypad (see column 5, lines 1-2), below the display in fixed positions relative to the display.

In reference to claim 27, Kraft et al. and Katada disclose all of the claim limitations as applied to claim 18 above. Neither Kraft et al. nor Katada explicitly disclose the handheld computer configured to comprise of a touch screen display however, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to the implement a multitude of different types of displays (i.e. LCD of various pixel sizes, TFT, character matrix LCD etc.) in the phone device of Kraft et al.. Applicant has not disclosed that specifically providing such explicit type of display, touch screen display, provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the display included in the phone device of Kraft et al., because the exact type of phone included in a phone device is seen as a matter decided upon by the inventor and to which best suits the application at hand. Furthermore, the Office sees such a limitation as providing no immediate criticality to the invention at hand since the real scope of the invention is seemed to be directed to use of light sensors on a handheld device to adjust brightness/other parameters of the device and because the implementation of a touch screen display in a phone device would not affect the operation, as per the scope of the claims, of the device as a whole. Therefore, it would have been obvious to one of ordinary skill in this art to modify the combination of Kraft et al. and Katada to obtain the invention as specified in claim 27.

In reference to claims 29 and 36, Kraft et al. discloses telephone automatic mode selection method for implementation in a phone, connectable to both cellular and cordless networks), the phone comprising a normal user interface including a display and keypad (see column 4, lines 58-67 and column 5, lines 1-2). Note, the Office interprets the phone of Kraft et

al. functionally equivalent to a "handheld computer" as Kraft et al. further discloses the phone comprising a CPU (see column 4, lines 58-63). Also, the phone of Kraft et al. is interpreted as inherently comprising, "a housing configured to be held in hand during use" since it is a telephone and further inherently comprises a front surface of the housing which supports the phone display, disclosed by Kraft et al. (see column 5, lines 1-2). One of ordinary skill in the art would surely agree with such interpretations made by the Office since telephones are widely utilized and available incorporating such limitations. Kraft et al. further discloses the CPU and coupled circuitry to handle cellular telephone specific functions (see column 5, lines 26-43) and therefore the Office interprets Kraft et al. to disclose the phone as comprising cellar telephone electronics. Kraft et al. also discloses the phone to use control parameters to operate a timer function for enabling a calendar function for entering of appointment data (see column 2, lines 15-21 and column 4, lines 35-57). Note, the Office interprets the CPU (computing electronics) to handle such calendar or PIM data functions since Kraft et al. discloses the CPU to handle the phone modes (see column 6, lines 7-24). Further, the Office interprets the "contact" limitation of Applicant's claim to inherently be comprised with the phone device and user interface disclosed by Kraft et al. since such feature, having a list of saved dialed phone numbers is inherent to telephone devices. Kraft et al. discloses the phone to further comprise of a light detector for detecting light conditions around the phone which are interpreted as being received by the computing electronics (i.e. CPU and coupled circuitry of the phone) (see column 5, lines 44-52). Although Kraft et al. discloses a single light detector, Kraft et al. does not explicitly disclose the light detector adjusting a characteristic of the handheld device. Katada discloses a pager provided with a display function to display messages and the capabilities of changing display

brightness according to the ambient environment (see column 1, lines 5-10). Katada discloses the pager to comprise of two photo sensors for receiving ambient light and light projected by the display backlight (see column 6, lines 46-58 and #21 and 22 of Figure 1). Katada discloses adjusting display contrast and brightness (via whether to turn on or off the display backlight) based upon the values measured from the photo detectors (see column 7, lines 8-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the photo detectors of Katada with the phone system of Kraft et al. in order to provide optimum displaying of text/image data on a display of a portable/handheld device when the display backlight is turned on, via the utilization of a first photo detector and adjustment of backlight intensity, and even when the display backlight is turned off via a second photo detector and adjustment of display intensity (see column 10, lines 39-51 of Katada).

4. Claims 28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraft et al. (U.S. Patent 6,463,278 B2), Katada (U.S. Patent 5,933,089) and further in view of Helms (U.S. Patent 5,952,992).

In reference to claims 28 and 31, Kraft et al. and Katada disclose all of the claim limitations as applied to claims 18 and 30 respectively above. Neither Kraft et al. nor Katada explicitly disclose averaging the plurality of signals from the light sensors. Helms discloses a method and apparatus for automatically adjusting the brightness of an LCD based upon ambient lighting conditions of the environment in which a laptop (handheld) computer is used (see column 2, lines 3-6, 8-18 and Figure 1). Helms discloses computing a weighted average of measured signals obtained by photodetectors (one on the front surface and another on the back surface of the display lid, see Figure 4) and using the computed average to index a lookup table

(see columns 4-5, lines 66-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the automatic brightness controlling techniques of Helms with the photo detectors of Katada and phone system of Kraft et al. in order to provide the computing electronics with a better representation of ambient light levels directed towards the device by supplying the electronics with multiple samples derived from the multiple sensors, thus the multiple samples provide more light detection at or around the device than using only one reading from one sensor. Such is particularly useful in situations in which light is directed toward the back of the LCD, hence toward the user's eyes, which light, while affecting the visibility of the LCD, might not be detected by the a first photodetector (see column 2, lines 32-36 of Helms).

Response to Arguments

5. The cancellation of claims 1-17 and addition of claims 18-37 are noted.

6. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

References Cited

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a. Han et al. (U.S. Patent 6,726,106 B1)

- Han et al. discloses a handheld device implementing power management and device illumination mechanisms.

b. Gettemy et al. (U.S. Patent 6,718,115 B1)

- Gettemy et al. discloses a PDA employing efficient and relative even distribution of illumination throughout a display screen

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung, can be reached at (571) 272-7794.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

571-273-8300 (Central Fax)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (571) 272-2600.

aac

5/4/07

Antonio Caschera
Patent Examiner

KEE M. TUNG
SUPERVISORY PATENT EXAMINER